

ABSTRACT OF THE INVENTION

5 A process for removal of a photoresist mask used to etch openings in low k carbon-doped silicon oxide dielectric material of an integrated circuit structure, and for removing etch residues remaining from either the etching of the openings or removal of the resist mask, while inhibiting damage to the low k dielectric material comprises. The structure is exposed to a reducing plasma to remove a portion of the photoresist mask, and to remove a portion of the residues remaining from formation of the openings in the layer of low k dielectric material. The structure is then exposed to an oxidizing plasma to remove any remaining etch residues from the openings in the layer of low k dielectric material or removal of the resist mask.